

## IB Review Session 1

- \* Formula Booklet
- \* IB Test information
- \* Summary Review packet
- \* Paper 2 practice
- \* Questions for next session

## IB Formula Booklet

You will be given a clean copy of this at the test. Use yours from class as you work through the practice tests.

Memorize any extra information you added to the list and find you need as you review.

If you lost yours, download another from my website.

## IB Test information

Graphers will be collected and reset on Mon, April 30.

Your calculator will be handed to you as you arrive at the test site:

A - K: Emerald Bible Fellowship

L - Z: Harvest Community Church

First thing to do when you get it back:

Turn Diagnostics on!

## Pearson's Product Moment Correlation Coefficient, r using a GDC

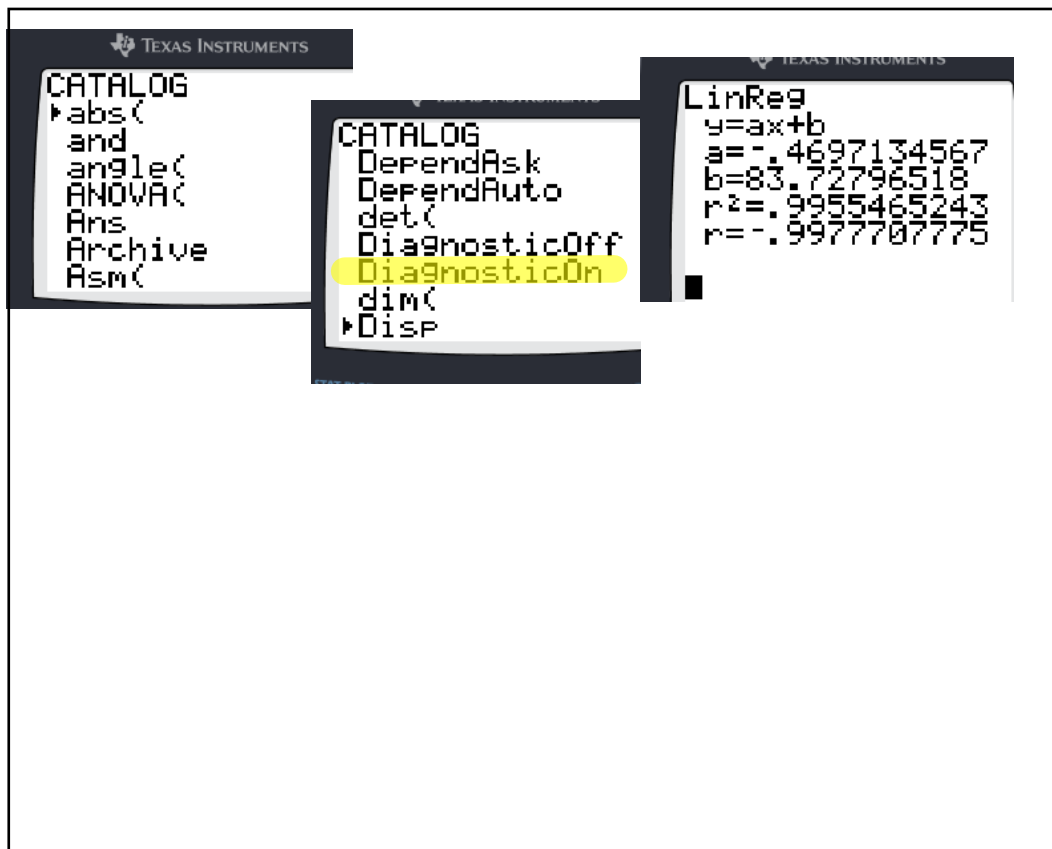
**Set up calculator for Diagnostics**  
**(Need to do it every time the GDC is reset)**

### **For older Ti-84**

1. 2nd →
2. 0 (To access catalog) →
3. Scroll down to DiagnosticOn (Or use ALPHA  $x^{-1}$  (To access D) and then scroll down a little to DiagnosticOn) →
4. Enter
5. Enter.

### **For Newer Ti-84 Silver Plus c**

1. Mode →
2. Scroll down to Stat Diagnostics → Select On
3. Enter
4. Clear.

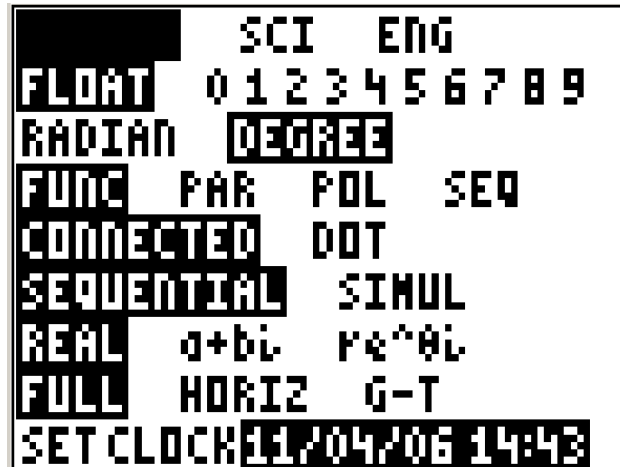


reminder :

always have your GDC  
to "Float"

•

Reminder to always have your calculator set to FLOAT



## Summary Review Packet

You should read through this to refresh your memory of what we learned.

Use it also to look things up as you work through the practice tests.

## Paper 2 Practice

Take some time in your team to work through the first few problems, then we'll look them over together.

a)  $a = 4.2$   $b = 74$

b) STAT 1-Var Stats

i)  $\bar{x} \approx 5.91$  km

ii)  $\bar{y} = 88$  micrograms per  $m^3$

iii) STAT Calc  $\ln \text{Reg}(ax+b)$   $r \approx -0.956$   
STORE RegEq:  $Y_1$

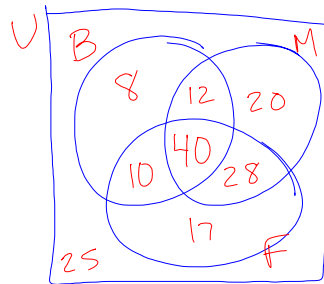
c)  $y \approx -5.39x + 120$

d)  $\approx 44.4$

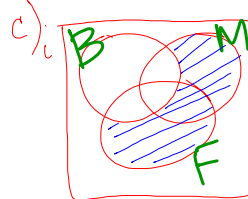
Not reliable because  $Y$ -Vars  
14 km is an extrapolation.

VAR-S

2)a)



b) 160



ii) 65

d) i)  $\frac{100}{160} = \frac{5}{8}$

ii)  $\frac{20}{65} = \frac{4}{13}$

iii)  $\frac{90}{160} \leftarrow 10 + 12 + 28 + 40$   
 $= \frac{9}{16}$

e) (Probability) (# of students) =  $\frac{100}{160} \cdot 850$   
 $= 531$

3a) 12 m

b)  $h(15) = -0.2(15)^2 + 16(15) + 12$   
 $= 207 \text{ m}$

c)  $0 = -0.2k^2 + 16k + 12$   
 $\downarrow$   
 $t \approx 80.7 \text{ secs}$

d)  $h'(t) = -0.4t + 16$

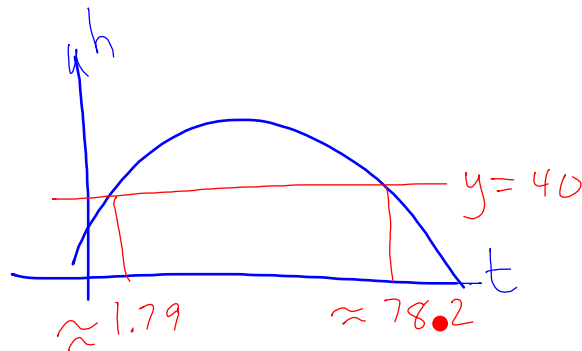
e) i) Max height when  $h'(t) = 0$

$0 = -0.4t + 16$

$t = 40 \text{ secs.}$

ii)  $f(40) = -0.2(40)^2 + 16(40) + 2$   
 $= 332 \text{ meters}$

f)



$-0.2t^2 + 16t + 12 = 40$

solve for t

$t \approx 1.79, 78.2$

Time for visibility:  $78.2 - 1.79 \approx 76.4 \text{ secs}$

a)

$\tan 58.3^\circ = \frac{VM}{115}$

$VM = 115 \tan 58.3^\circ$

**★ Degree Mode!**  
(Store this value)

STO

b) Pyth. Th.

c)  $V = \frac{1}{3} (\text{Area}_{\text{Base}}) (\text{Height})$

$= \frac{1}{3} (230)^2 (10)$

$\approx 2,580,000 \text{ m}^3$

4d)  $2.58 \times 10^6 \text{ m}^3$

e)

430 km

5 m

1 m

$V = (1)(5)(430,000)$

$V = 2,150,000 \text{ m}^3$

which is less than the pyramid

Ahmad is correct.

Next session:

Questions on Paper 2

Start work on Paper 1

IA scores